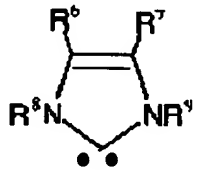
M is ruthenium or osmium;

X and X^1 are each independently an anionic ligand;

L is a neutral electron donor ligand, provided that L is not an unsaturated N-heterocyclic carbene of the following formula:



; and,

R, R^1, R^6, R^7, R^8, and R^9 are each independently hydrogen or a substituent selected from the group consisting of C_1-C_{20} alkyl, C_2-C_{20} alkenyl, C_2-C_{20} alkynyl, aryl, C_1-C_{20} carboxylate, C_1-C_{20} alkoxy, C_2-C_{20} alkenyloxy, C_2-C_{20} alkynyloxy, aryloxy, C_2-C_{20} alkoxycarbonyl, C_1-C_{20} alkylthio, C_1-C_{20} alkylsulfonyl and C_1-C_{20} alkylsulfinyl, the substituent optionally substituted with one or more moieties selected from the group consisting of C_1-C_{10} alkyl, C_1-C_{10} alkoxy, aryl, and a functional group selected from the group consisting of hydroxyl, thiol, thioether, ketone, aldehyde, ester, ether, amine, imine, amide, nitro, carboxylic acid, disulfide, carbonate, isocyanate, carbodiimide, carboalkoxy, carbamate, and halogen.

REMARKS

Claims 1-40 are pending in the application. In the Office Action, the Examiner rejected claim 2 under 35 U.S.C. § 112 and claims 1, 23 and 32 under 35 U.S.C. § 102(a) as being anticipated by Herrmann et al. The Examiner further objected to claims 3-11, 24-31 and 33-35 as being dependent upon a rejected base claim. Applicant has added new claims 36-40. No new material has been added.

Initially, applicant notes with appreciation the Examiner's allowance of claims 12-22.

In response to the 35 U.S.C. § 112 rejection, Applicant has amended claim 2 so that it particularly points out and claims the subject matter of the invention. The changes made to the claim may be seen at Exhibit A, as required by 37 C.F.R. § 1.121(b)(iii).

In the Office Action, the Examiner rejected claims 1, 23 and 32 under 35 U.S.C. § 102(a) as being anticipated by Herrmann et al. Applicant respectfully submits that Herrmann was not in possession of the invention of the use of the compound at the time that the article was drafted. That is, the compound shown in the Herrmann reference was the result of a typographical error as opposed to an inventive step. Since the compound of formula 1 noted by the Examiner was improperly included in the reference, the abstract was not properly cited as a 35 U.S.C. § 102(a) rejection.

At the Examiner's request Applicant will submit a declaration from Thomas Weskamp, who was a member of Herrmann's lab at the time of the invention of the subject matter disclosed in the Herrmann reference. This declaration will support Applicant's position that the compound shown in formula 1 is a result of a typographical error. Dr. Weskamp was a co-inventor of the subject matter disclosed in the cited abstract, as well a co-author of the cited Herrmann reference.

One of ordinary skill in the art, upon reading the Herrmann abstract, would have realized that there was an error in the drawing of the compound of formula 1. First, the abstract states that "we present the first ruthenium-based examples of general structure **1** as a novel class of organometallic compounds containing ... *N*-heterocyclic carbene (Arduengo-type carbene)[1] moieties." Such Arduengo-type ligands are unsaturated. Furthermore, the cited footnote is to a

publication discussing unsaturated ligands. Clearly, it was anticipated by the draftsperson that the compound of structure 1 would contain two unsaturated *N*-heterocyclic carbene moieties.

The abstract further states that the compounds such as the compound of structure 1 may be prepared with "Grubbs' phosphine complex $RuCl_2(PPh_3)_2(=CHPh)^2$ and the appropriate 1, 3-disubstituted imidazolin-2-ylidene [citation omitted]." One skilled in the art would know that 1, 3-disubstituted imidazolin-2-ylidenes are unsaturated carbenes. Since unsaturated carbenes are named as appropriate starting materials for forming the compound of structure 1, one skilled in the art would have realized that the saturated carbene shown in structure 1 was likely a typographical error.

It is extremely difficult to produce a complex having two different neutral ligands using simple displacement procedures. The fact that structure 1 as shown contains two different neutral ligands would have suggested to one skilled in the art that the structure of one of the ligands was in error. As discussed above, the Arduengo reference and the portion of the Herrmann abstract describing the synthesis of the compound of formula 1 would have been clear indications to those skilled in the art that the saturated ligand was in error.

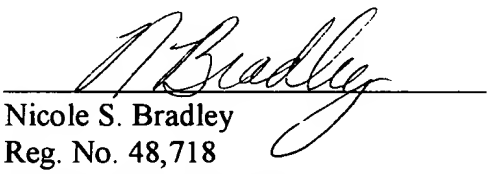
As noted above, applicant has added new claims 36-42. Claims 36--53 and 55-57 correspond to claims 2 and 24, rewritten in independent form. Claim 38 generally corresponds to the subject matter of claim 32. Claims 39-40 recite limitations similar to independent claim 1. These claims, which do not recite an unsaturated NHC carbene ligand, are neither anticipated nor rendered obvious by the prior art. No new material has been added.

Conclusion

If the foregoing does not place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing this application in condition for allowance.

Any additional fees which are required in connection with this communication and which are not specifically provided for herewith are authorized to be charged to Deposit Account No. 03-3975. Any overpayments are also authorized to be credited to this account.

Dated: March 11, 2002

By: 

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ATTACHMENT A

Please amend claim 2 as follows:

2. (Amended) The compound as in claim 1 wherein:

M is ruthenium;

L [and L^1 are each independently] is selected from the group consisting of phosphine, sulfonated phosphine, phosphite, phosphinite, phosphonite, arsine, stibine, ether, amine, amide, imine, sulfoxide, carboxyl, nitrosyl, pyridine, and thioether; and,

X and X^1 are each independently hydrogen, halide, or a substituent selected from the group consisting of C_1-C_{20} alkyl, aryl, C_1-C_{20} alkoxide, aryloxide, C_3-C_{20} alkyldiketonate, aryldiketonate, C_1-C_{20} carboxylate, arylsulfonate, C_1-C_{20} alkylsulfonate, C_1-C_{20} alkylthio, C_1-C_{20} alkylsulfonyl, and C_1-C_{20} alkylsulfinyl, the substituent optionally substituted with one or more moieties selected from the group consisting of C_1-C_{10} alkyl, C_1-C_{10} alkoxy, aryl and halide.